Remarks

Currently pending in the application are claims 1-5, 8-11, 13 and 15. Claims 1, 8 and 13 have been amended to further distinguish Applicant's invention. Support for these amendments can be found at, for example page 4, ll. 12-13. No new matter has been added.

35 U.S.C. § 103(a)

The Examiner rejected claims 1-5 and 13 under 35 U.S.C. § 103(a) as being unpatentable over Bagga et al. (US 4,701,378) in view of Blykahman (US 5,591,811) and further in view of Goswami et al. (US 4,652,398). The Examiner also rejected claims 8-11 and 15 as being unpatentable over Bagga et al. in view of Blykahman and further in view of Goswami et al. and Klein et al. (US 6,245,835). Finally, the Examiner rejected claim 14 as being unpatentable over Bagga et al. in view of Blykahman and further in view of Goswami et al. and further in view of Das et al. (US 5,922,448). Applicant traverses these rejections for the following reasons.

As presently claimed, claim 1 is directed to a liquid composition containing A) a 1-imidazolylmethyl-substituted 2-naphthol compound of the general formula (I) and B) a phenol selected from the group consisting of 1,4-n-pentylphenol, n-hexylphenol, n-heptylphenol, n-octyphenol, n-decylphenol, and O,O'-diallyl-bisphenol A with a weight ratio of component A) to component B) being from 30:70 to 70:30. Additionally, claim 8 is directed to a curable composition containing a liquid composition of the A) and B) components above at a weight ratio of component A) to component B) being from 30:70 to 70:30 in combination with an epoxy resin, curing agent and optionally additives, and claim 13 is directed to a method of making such a curable composition.

Bagga et al. teach a composition containing an epoxy resin, a nitrogen-containing latent curing agent and a solid solution of a blend of polymeric phenol and high boiling basic nitrogen compound. The Examiner had added Blykahman to Bagga et al. for the purpose of teaching the 1-imidazolylmethyl-substituted 2-naphthol compound of the general formula (I) and Goswami et al. for the purpose of teaching the combination of an epoxy resin, O,O'- diallylbisphenol A and an imidazole. However, neither Bagga et al., Blykahman, nor Goswami et al., alone or in combination, teach or suggest a liquid composition containing 1-imidazolylmethyl-substituted 2-naphthol compound of the general formula (I) in combination with a phenol selected from the group consisting of 1,4-n-pentylphenol, n-hexylphenol, n-heptylphenol, n-octyphenol, n-decylphenol, and O,O'-diallyl-bisphenol A with a weight ratio of the compound of formula (I) to phenol being from 30:70 to 70:30 as presently claimed. Thus, the combination of publications does not render claim 1 or 13 obvious.

Similarly, adding Klein et al. also does not bring one skilled in the art closer to Applicant's invention as presently claimed in claim 8. Klein et al. has been added for the purpose of teaching a polyoxypropylenediamine curing agent. However, for all of the reasons set forth above, this publication, combined with the other publications cited above does not teach or suggest a liquid composition containing 1-imidazolylmethyl-substituted 2-naphthol compound of the general formula (I) in combination with a phenol selected from the group consisting of 1,4-n-pentylphenol, n-hexylphenol, n-heptylphenol, n-octyphenol, n-decylphenol, and O,O'-diallyl-bisphenol A with a weight ratio of the compound of formula (I) to phenol being from 30:70 to 70:30.

Furthermore, claim 14 is no longer pending rendering this rejection moot.

In addition, Applicant has surprisingly found curing of epoxy resin systems at low temperatures can be accelerated and cured articles having higher than expected interlaminar shear strength can be achieved when 1-imidazolylmethyl-substituted 2-naphthol compounds of the formula (I) are combined with 1,4-n-pentylphenol, n-hexylphenol, n-heptylphenol, n-octyphenol, n-decylphenol, or O,O'-diallyl-bisphenol A, at a weight ratio of the compound of formula (I) to phenol being from 30:70 to 70:30. In particular, the claimed combination of the present invention is able to cure an epoxy resin system at low temperatures of between 60°-75°C (rather than temperatures greater than 100°C as generally taught) to provide cured articles having interlaminar shear strength values up to 50 MPa which is substantially higher than a composition containing the imidazole alone. *See present application* at Table 2, page 8. The Applicant found this both surprising and unexpected and this is neither taught nor suggested in Bagga et al. Blykahman or Goswami et al.

Therefore, in view of the amendments and remarks above, Applicant respectfully requests the rejection of claims 1-5, 8-11, 13 and 15 under 35 U.S.C. § 103(a) be withdrawn.

Conclusion

It is respectfully submitted that claims 1-5, 8-11, 13 and 15 are patentable and are in a condition for allowance. Applicant respectfully requests all pending claims be allowed and that the application pass to issuance.

Respectfully Submitted

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